Patent Claims

1. Use of a biaxially oriented microporous film which comprises a propylene polymer and at least one β-nucleating agent and whose microporosity is generated by conversion of β-crystalline polypropylene during stretching of the film, for the labelling of containers during blow moulding.

2. Use according to Claim 1, characterized in that the porosity of the film is in the range from 500 to 1300 Gurley.

3. Use according to Claim 2, characterized in that the density of the film is in the range from 0.2 to 0.85 g/cm^3.

4. Use according to Claim 2 and/or 3, characterized in that the film comprises a propylene homopolymer and/or a propylene block copolymer.

5. Use according to Claim 1, characterized in that the film comprises a mixture of propylene homopolymer and propylene block copolymer and the ratio is in the range from 90:10 to 10:90.

6. Use according to one or more of Claims 1 to 5, characterized in that the film comprises from 0.001% by weight to 5% by weight – based on the weight of the β-nucleated layer, of β-nucleating agent.

7. Use according to one or more of Claims 1 to 6, characterized in that the nucleating agent is a calcium salt of pimelic acid or of suberic acid or is a carboxamide.

8. Use according to one or more of Claims 1 to 7, characterized in that the film is produced by the stenter process, and the take-off roll temperature is in the range from 60 to 130°C.

9. Use according to one or more of Claims 1 to 8, characterized in that the applied label does not have an orange peel.

10. Process for the production of a labelled container by means of the blow-moulding process, in which a thermoplastic polymer is extruded as melt tube through an annular die into a two-part mould, in which a film or at least one film section has been laid, and the melt tube is squeezed at one end by closing the two-part mould and air is introduced at the opposite end in such a way that the melt tube is inflated and adapts itself to the mould in such a way that a hollow body is shaped, and at the same time the laid-in label is applied, characterized in that the label consists of a biaxially oriented porous film which has an open-pored network-like structure produced during production of the film by conversion of β-crystalline polypropylene into alpha-crystalline polypropylene during the stretching.